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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,121	02/19/2002	Carlo Cattaneo	163-380	6775

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EXAMINER
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RODRIGUEZ, RUTH C

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/079,121

Applicant(s)

CATTANEO, CARLO

Examiner

Ruth C Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings were received on 14 October 2003. These drawings are approved.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Document EP 0 976 346 A2 (EP '346) in view of European Patent Document EP 0 972 466 A2 (EP '466).

Connection device (20) for a tubular-frame structure for supporting surfaces comprises a body (21) with at least one socket (22) projecting for connection to tubular

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profiles (23) in perpendicular direction or at an angle, projects a connector for releasable connection of a tubular leg (Figs. 1-19). The at least one socket has a non-continuous external wall that defines a seat (24) attached at the base by an abutment surface for a blocking means (25) carrying a threaded hole (27) that houses an operation grain (26). The body of the connection device has a threaded aperture with a nut connecting to a threaded fastener extending from a tubular leg. EP '346 fails to disclose that the connector is composed of an expandable cylindrical body. However, EP '466 teaches a connection device (15) provided with an expandable cylindrical body (11) equipped with a plurality of notches (19) and upon which acts an operation grain (23) that can be operated through a key from outside the tubular leg. This device simplifies the connection of a hollow leg because the connection only requires machining of a hole in the leg and the connection does not require machining of various pieces to obtain the connection (C. 1, L. 50-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have an expandable cylindrical body according to the teaching of EP '466 in the connection device disclosed by EP '346. Doing so, simplifies the connection of a hollow leg because the connection only requires machining of a hole in the leg and the connection does not require machining of various pieces to obtain the connection. Additionally less labor is required for the manufacture of the leg because the threaded fastener is not being inserted in the leg. This connection also prevents accidental disengagement between the body and the leg that may occur during normal use where the threaded

engagement between the threaded hole and the threaded fastener may come loose and allows quick installation in tight places.

EP '346 also discloses that:

- The blocking means is a beam (25) that has a U-shaped cross section (middle portion to the top or middle portion to the bottom) (Fig. 1).
- The blocking means causes or prevents connection by interfering only with curved portions of the external wall being opposite the beam with the tubular profile moving along in the seat controlled by the operation grain (Figs. 6-9).
- The tubular profile is fitted until it abuts against an abutment surface in the body (Figs 1, 5 and 11-14).
- The operation grain can be accessed through a hole (32) on the tubular profile fitted onto the socket (Figs. 1, 5-7 and 11-14).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP '346 in view EP '466 as applied to claim 1 above, and further in view of Lerich (US 3,967,525).

EP '346 discloses a connection device having all the features mentioned above in paragraph 5 for the rejection of claim 1. The socket disclosed by EP '346 comprises a hole (29) housing a portion of the operation grain by means of a peripheral edge of the hole (Figs. 3-5 and 10). EP '346 fails to disclose that the operation grain is held in place by a sealing element. However, Lerich teaches a fastener (10) having a threaded portion (13) and an anchor (14) disposed in an opening by using a sealing element (28). The sealing element is in the form of a broken ring made of hardened steel (Figs. 1 and

2). The ring allows easy insertion of the fastener and prevents withdrawal of the fastener from the opening (C. 1, L. 67 and 68 and C. 2, L. 1-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a sealing element as taught by Lerich to retain the operation grain disclosed by EP '346 because the sealing element will allow easy installation of the operation grain to the socket but prevent withdrawal of the operation grain from the socket.

### ***Response to Arguments***

6. Applicant's arguments filed 14 October 2003 have been fully considered but they are not persuasive.

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that the references cannot be arbitrarily combined and that there must be some reason why one skill in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specified disclosures. *In re Bozek*, 163 USPQ 545 (CCPA 1969). In this case, the patent document EP '346

discloses that the use of a leg connection is desirable with the body comprising a socket and discloses the use of a threaded shaft 35 provided in the leg to engage a nut located on the body to engage the leg with the body. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to substitute the threaded connection disclosed by EP'346 with any other connection for a leg as long as the teaching references provides an advantage for the substitution and it is within the table support art. As a result, the modification made by the Examiner is considered valid because the teaching reference patent Document EP '466 does provide an advantage derived from having an expandable cylindrical body for the connection of a leg to a body as is taught in lines 50-55 of column 1. Additionally, other advantages have also been included in the rejection of the claim.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vogt (US 3,701,553), Sonolet (US 3,743,332), Schneider (US 3,822,101), Andersson (US 3,901,613), Berkowitz (US 3,958,889 and US 4,027,987), Day (US 4,249,830), Vandelanoite (US 4,291,999), Yamamoto (US 4,319,629), Thom (US 4,344,719), Allen (US 5,904,437), French Patent Documents 1,349,424 and 2 578 297, Swiss Patent Document 438 848 and European Patent Documents EP 0 226 654 A1, EP 1 234 526 A1, EP 1 234 986 A1 and EP 279 353 A1 are cited to show state of the art with respect to connection devices having some of the features of the current application.

Peirce (US 1,407,570) is cited show state of the art with respect to connecting a fastener by the use of a sealing element.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C Rodriguez whose telephone number is (703) 308-1881. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (703) 306-4115.


Submissions of your responses by facsimile transmission are encouraged. Technology center 3600's facsimile number for before and after final communications is (703) 872-9306.



Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Ruth C. Rodriguez  
Patent Examiner  
Art Unit 3677

*RER*  
rcr  
December 30, 2003

  
James R. Brittain  
Primary Examiner